

REMARKS

CLAIM REJECTIONS - 35 U.S.C. § 103

Claims 1-3, 11, 14, 17, 18, 21, 22, 25 and 27-30 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,380,783 issued to Chao et al. (*Chao*) in view of U.S. Patent No. 6,826,390 issued to Tamura (*Tamura*). Applicant submits claims 1-3, 11, 14, 17, 18, 21, 22, 25 and 27-30 are not obvious in view of *Chao* and *Tamura* for at least the reasons set forth below.

Independent Claims 1 and 25

Claim 1 recites, in part, the following:

charge storage circuitry to maintain a first amplitude of a first interrelated control signal and a second amplitude of a second interrelated control signal;

amplitude circuitry coupled to said charge storage circuitry to increase the first amplitude at a rate substantially equivalent to a rate of decrease in the second amplitude, to change an amplitude contribution of a reference clock phase, within high and low amplitude boundaries of a substantially small signal region of a transfer characteristic of phase control circuitry of a phase interpolator.

Thus, Applicant claims charge storage circuitry to maintain a first amplitude of a first interrelated control signal and a second amplitude of a second interrelated control signal. Claim 25 recites similar limitations.

The Office action states that *Chao* fails to disclose charge storage circuitry to maintain a first amplitude of a first control signal and a second amplitude of a second control signal. Applicant agrees with this characterization of *Chao*.

The Office action cites *Tamura* as disclosing sample and hold circuitry in which capacitors are used to store charges used for weighting signals. Whether or not *Tamura* teaches the limitations cited in the Office action, *Tamura* does not teach or disclose charge storage circuitry to maintain a first amplitude of a first ***interrelated control signal*** and a second

amplitude of a second *interrelated control signal*. Thus, *Tamura* fails to cure the deficiencies of *Chao*. Therefore, Applicant respectfully submits claims 1 and 25 are not obvious in view of *Chao* and *Tamura*.

Claims 2, 3, 11 and 14 depend from claim 1. Claim 27 depends from claim 25. Given that dependent claims necessarily include the limitations of the claims from which they depend, Applicant submits claims 2, 3, 11, 14 and 25 are not obvious in view of *Chao* and *Tamura* for at least the reasons described above.

Independent Claims 17 and 28

Claims 17 and 28 have been amended to include the allowable subject matter of claim 19. Therefore, Applicant submits claims 17 and 28 are in condition for allowance. Claims 18, 21 and 22 depend from claim 17. Claims 29 and 30 depend from claim 28. Given that dependent claims necessarily include the limitations of the claims from which they depend, Applicant submits claims 18, 21, 22, and 29-30 are also in condition for allowance.

ALLOWABLE SUBJECT MATTER

The Office action states that claims 4-10, 12, 13, 15, 16, 19, 20, 23, 24 and 26 contain allowable subject matter. Applicant agrees that these claims contain allowable subject matter. Claim 19 has been cancelled and the allowable subject matter of claim 19 has been incorporated in claims 17 and 28. The remaining allowable claims were objected to because they depend from rejected base claims. However, given Applicant's traversal of the rejections of the respective base claims, Applicant respectfully requests that the objections to these claims be withdrawn.

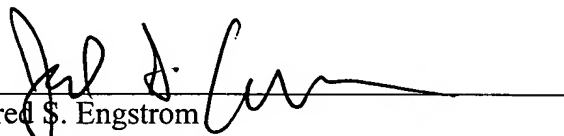
CONCLUSION

In view of the remarks set forth above, Applicant submits that claims 1-18 and 20-30 are in condition for allowance and such action is respectfully solicited. The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

Please charge any shortages and credit any overcharges to our Deposit Account number 02-2666.

Respectfully submitted,
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